FVB-Tg(Myh6-mCherry/Map1lc3a)1Rag/J

Stock No: 021853

Coisogenic, Transgenic

PLACE ORDER

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

This mCherry-LC3 transgenic line expresses a mCherry-Map1lc3a, Red Fluorescent protein- microtubule-associated protein 1 light chain 3 alpha fusion gene under the direction of a mouse Myh6, myosin, heavy polypeptide 6, cardiac muscle, alpha, promoter. Applications exist in studies related to cardiac autophagy.

Donating Investigator

Roberta Gottlieb, Cedars-Sinai Heart Institute
Autophagy, the highly conserved catabolic mechanism, employs the lysosome system to break down and recycle aged and damaged cellular components, such as macromolecules and organelles. It is a physiological adaptation strategy in response to stress and starvation, as well as an immune mechanism during infection. The processed isoform encoded by Map1lc3a (also called LC3) binds to autophagosomal membranes. These mCherry-LC3 transgenic mice express mCherry-Map1lc3a (Red Fluorescent protein- microtubule-associated protein 1 light chain 3 alpha) fusion gene, under the control of the mouse Myh6 (myosin, heavy polypeptide 6, cardiac muscle, alpha) promoter. Transgene expression is detected in autophagosomes of myoicytes. Rapamycin administration to transgenic mice increases the number of fluorescently labeled autophagosomes in the myocardium. Co-administration of chloroquine with rapamycin further increases the number of autophagosomes. Monodansylcadaverine labeling co-localizes with mCherry fluorescence. The donating investigator reports that transgene expression level has been stable since the line was established. Mice that are homozygous for the targeted mutation are viable but express high levels of the transgene fusion protein, which may form protein aggregates and/or dysregulate autophagy. Hemizygotes are viable and fertile.
Genotyping Protocols
Standard PCR: Generic mCherry
MELT: Generic mCherry
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, hemizygous or homozygous mice may be bred together, to wildtype siblings, or to FVB/NJ inbred mice (Stock No. 001800). The Donating Investigator recommends using hemizygotes for research as mice homozygous for the transgene express high levels of the fusion protein, which may form protein aggregates and/or dysregulate autophagy.
Additional Breeding and Husbandry Support

Citation
When using the FVB-Tg(Myh6-mCherry/Map1lc3a1)1Rag/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #021853 in your Materials and Methods section.

Animal Health Reports
Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200

Pricing & Availability

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Hemizygous for Tg(Myh6-mCherry/Map1lc3a1)1Rag</td>
<td>$2,595.00</td>
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We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a Dedicated Supply for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

Related Products and Services

Frozen Mouse Embryo $2,595.00 per straw or vial
Payment Terms and Conditions
Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

The Jackson Laboratory’s Genotype Promise
The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. Therefore, we cannot guarantee a strain’s phenotype will meet all expectations. To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project.

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All

By Allele

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